



KEEPING AN EYE ON THE WANDERER

Peregrine falcons were taken off the endangered species list nine years ago. Researchers and volunteers continue to monitor these lightning-fast raptors to make sure they stay off.

BY DEBORAH RICHIE OBERBILLIG



n an unnaturally still mid-April day in this usually wind-whipped region, Sharon Fuller and Kate Davis scan cliff faces along the Rocky Mountain Front. The two volunteers are helping with a peregrine falcon population monitoring project led by Jay Sumner, director of the Montana Peregrine Institute. The previous summer, Sumner had recorded a nest site, called an eyrie, here at the Blackleaf Wildlife Management Area, about 20 miles west of Choteau. Fuller and Davis want to see if the nest is in use, indicating that peregrine numbers may be growing in the area. Arms sore from hours of holding binoculars aloft, they scan the distant limestone cliffs hoping to see a peregrine male offer midair prey to a female—a courtship prelude to nesting that confirms an active eyrie. During two days of searching the skies here and along the Dearborn, Sun, and Teton rivers, the volunteers have seen more than three dozen other raptors—including golden eagles, kestrels, and a Swainson's hawk—but so far no peregrines. Then, as if from nowhere, two falcons flash into view

above the tilting rock reef. For one moment the birds merge in midair, then break apart and streak downward to vanish on the massive cliff face. "A food transfer!" Davis calls out.

Montana is now home to more peregrines than any time in the past half century. The species, nearly wiped out by DDT, has recovered due to environmental regulations, federal protection, and the cooperative work of government agencies, Indian tribes, conservation organizations, and volunteers. A key player in the peregrine comeback has been Sumner, who says constant monitoring is essential to ensure the species continues to expand its range to historical sites across the state. "The peregrine population has increased since 1999, but the number is still low enough that we need to keep a close watch on eyrie production," Sumner says. "A decline could indicate an environmental problem that needs attention."

BULLETLIKE FLIGHT

In 1961, no one was monitoring peregrine falcons in Montana when Sumner climbed down a cliff outside his home in Livingston to

remove a peregrine chick from a nest. Above him, John Craighead held the belay rope and called out encouragement to the teenager. Earlier that year, Sumner had located the eyrie—the first he had ever seen—and knew at once whom to tell: John and Frank Craighead, whose *National Geographic* articles on falconry he had read and reread. Sumner worked up the nerve to call Yellowstone National Park and reached John Craighead, who was studying grizzly bears. To his surprise, Craighead said he would drive up immediately and suggested they take a chick from the nest—legal at the time because no one knew the birds were imperiled—and train it for falconry. The famous wildlife researcher and author insisted that Sumner, as finder, should be the one to do it.

Like so many falcon fans, Sumner has long been fascinated by the peregrine's bulletlike flight, which can exceed 200 mph. He says that to watch one fold its wings and plummet toward a flying bird far below is to witness devastatingly precise and unleashed speed. Sumner has seen peregrine falcons strike agile white-throated swifts and pluck salmonflies

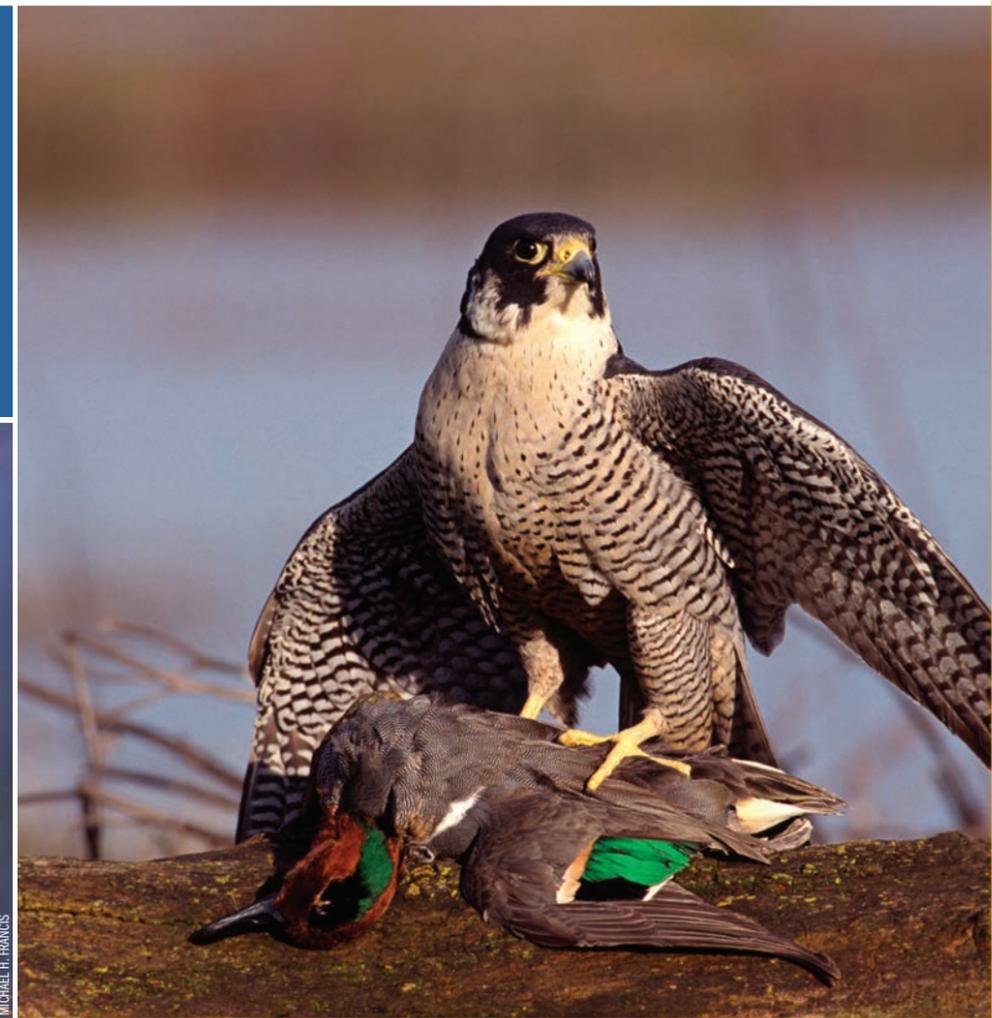


KATE DAVIS



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MALLARD MENACE For years peregrines were known as "duck hawks" for their ability to kill waterfowl (above, chasing mallards, and right, with a green-winged teal). After folding its wings, the falcon dives at speeds exceeding 200 mph, striking prey with such force that ducks sometimes appear to explode in midair. Left: Volunteers scan rocky reefs along the Rocky Mountain Front for peregrines. The crow-sized raptor is distinguished by its short tail, pointed wings, dark cap, and dark "mustache" dropping below the eyes.



MICHAEL H. FRANCIS

TIMELINE: Peregrine decline and recovery in the U.S.

Pre-WWII An estimated 3,800 peregrine falcons exist in the United States.

1945 DDT agricultural and commercial use becomes widespread. More than 1 billion pounds of the chemical are sprayed from 1945 to 1972.

1962 *Silent Spring*, by Rachel Carson, alerts the public to the hazards that DDT and other chemicals pose to wildlife.

1970 The peregrine falcon is listed as an endangered species (under a law preceding the 1973 Endangered Species Act).

1972 DDT is banned.

1973 The Endangered Species Act passes.

1975 Peregrines are extinct east of the Mississippi River. Fewer than 20 pairs exist west of the Great Plains in the lower 48 states. No documented peregrines exist in the Rocky Mountains.

1974-97 More than 6,000 peregrines are reintroduced back into the wild, 600-plus of them in Montana alone.

1999 The USFWS removes peregrines from the endangered species list.

2005 Montana removes peregrines from the state list.

2007 Sixty-nine peregrine pairs are nesting in Montana.

hovering over the ripples of a river. Davis, a certified falconer and director of the nonprofit education and rehabilitation center Raptors of the Rockies, says she once watched a trained hunting peregrine strike a mallard with such force that it knocked the duck's head off.

Named for its wide-ranging nature—peregrine is derived from the Latin word for “wanderer”—the species lives worldwide on every continent except Antarctica. According to the U.S. Fish and Wildlife Service, more than 3,800 peregrines hunted the skies across the United States before World War II. The widespread use of agricultural pesticides starting in the 1940s caused a drastic decline in the number of peregrine falcons, bald eagles, ospreys, and other birds of prey. DDE, a byproduct of DDT, prevents calcium deposition as eggshells form, leading to thin shells that break easily. Across the country, falcon nests failed. By the time biologists figured out that peregrines were in trouble, the population had fallen to just 12 percent of previously known levels. When the species was listed as federally endangered in 1970, only 39 known pairs remained in the lower 48 states.

The 1972 ban on DDT in the United States proved the essential step in reversing the peregrine population decline. However, because so few birds remained, peregrines needed additional help. The Peregrine Fund and other nonprofit groups were formed to save the species from extinction by breeding captive birds and releasing young back to the wild. The groups worked with falconers to develop a technique for hatching birds and then placing chicks on a cliff in a “hack” box with a front screen for the birds to see out. Volunteers fed the birds from a tube, staying out of view to prevent the falcons from associating food with humans. When the birds were ready to fledge (fly), a site attendant opened the door. The young peregrines gradually learned to hunt on their own—as well as avoid predators (golden eagles and great-horned owls), migrate and, if all went well, return to breed and raise wild young.

The hacking program succeeded. Since 1981, more than 600 captive-bred peregrines have been released in Montana.

Writer Deborah Richie Oberbillig lives in Missoula.

Enough survived to produce offspring that today inhabit 69 active eyries, mostly in the state's western and south-central regions. (An eyrie is considered active if both adults are present in spring and try to nest). Nationwide, more than 6,000 peregrines have been hacked from sites ranging from mountain cliffs to urban skyscrapers. An estimated 1,650 breeding pairs now exist in the United States. So quickly did the peregrine falcon recover that the U.S. Fish and Wildlife Service removed it from the endangered species list in 1999. In 2005, Montana took the bird off the state endangered species list after the population reached the state's recovery goal.

The bird's rapid recovery, says Fish, Wildlife & Parks chief of staff Chris Smith,



shows how the Endangered Species Act (ESA) can succeed. “We took a species in jeopardy, restored the population, removed it from the list, and now are allowing removal of some birds from the wild for falconry,” he says. Smith notes that for many species, federal listing comes too late for recovery. “But the peregrine, the grizzly bear, and the wolf are showing that we're making some progress under the ESA that's worth celebrating,” he says. In 2007, FWP hosted open houses across Montana on the proposed “take” of five to seven peregrine chicks (a conservative number representing roughly 5 percent of the known production of young) from the wild for falconry. Permits would go only to licensed general or master falconers, who must undergo a two-year apprenticeship and

pass a test before they are allowed to possess a falcon. Some peregrine advocates want the state to wait until the falcons reoccupy more geographic regions of Montana. Others say the state has exceeded recovery goals and such a limited take would not affect the population. Then there are those who prefer that wild peregrines be left alone. “The fact that we're even discussing the take of peregrine falcons shows just how successful the recovery has been,” says Smith. In January 2008, the FWP Commission agreed to let licensed falconers remove up to three chicks each year.

MONTANA RECOVERY EFFORTS

A cliff on the Red Rock Lakes National Wildlife Refuge was Montana's first hack site, established in 1981. Ralph Rogers, a falconer and retired teacher, hiked up the mountain every day, often with his wife and their two small children, to feed the chicks. The Rogers family spent many other summers tending peregrines, and also raised and released 62 falcons near the Missouri River. “It's fun to go to eyries today and know that many of the birds came from the breeding project in my yard,” says Rogers, who now works with Sumner to monitor eyries for the Montana Peregrine Institute. Rogers remembers a day with Sumner in Red Lodge during the mid-1980s, when the two were weary from scanning empty rock faces. “I said, ‘Jay, someday we are going to look for these birds and actually find them.’ Now we can't even cover all the eyries out there,” Rogers says.

Credit for peregrine recovery runs deep, from Congress, which overwhelmingly passed the Endangered Species Act in 1973, to individuals such as Billings Skyview High School students who donated \$1,000 in the 1980s to help with peregrine restoration in honor of the school's falcon mascot. Arnie Dood, coordinator of FWP's Threatened and Endangered Species Program, says the raptor's restoration might have faltered without the cooperation and commitment of federal biologists, state and national falconer associations, the Bureau of Indian Affairs, Bureau of Reclamation, Bureau of Land Management, and Salish-Kootenai Tribe. “The beauty of the peregrine recovery is you had all these players working together to do the right thing,” Dood says. “That's different from so many other wildlife

conservation efforts that bog down in conflict and controversy.” FWP continues to support peregrine recovery by helping fund the Montana Peregrine Institute's monitoring program.

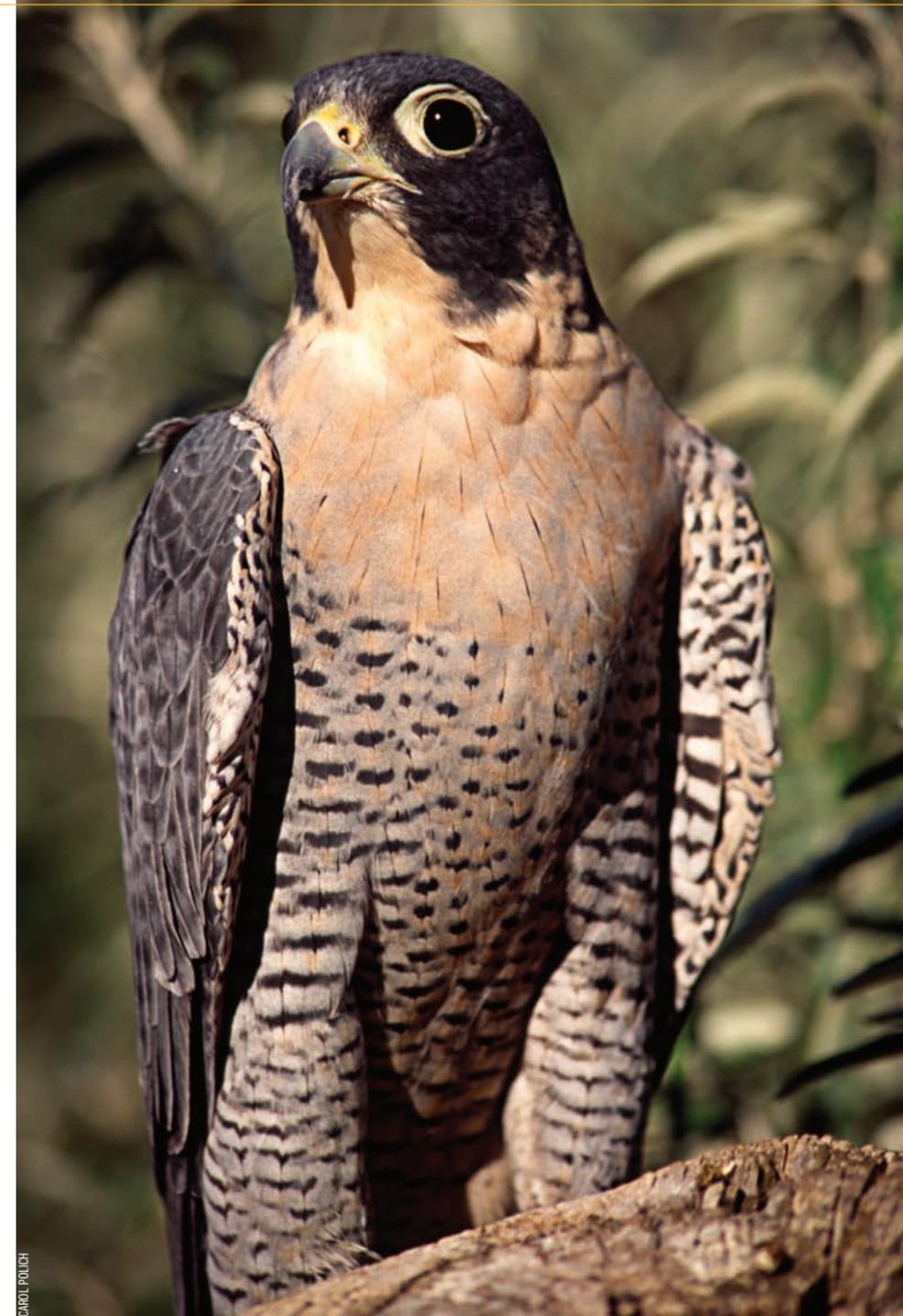
Under federal law, states must conduct monitoring surveys every three years until 2015 to ensure the peregrine continues its positive path to recovery. Sumner has chosen to survey Montana's birds every year, starting in 1999, despite FWP funding for only one in three years. He says monitoring must continue for at least ten consecutive years to assess population health—which includes nesting success, number of young, and habitat threats—and to document new eyries.

Last year Sumner noticed a worrisome decline in peregrine production. After averaging 1.94 young per eyrie from 1994 to 2006, peregrine production dropped to 1.6 in 2007. “We don't know why,” Sumner says. “It could be due to heavy metals, West Nile virus, or other environmental causes. But if we weren't monitoring, we wouldn't even know that there might be a problem that needs investigating.”

Each year Sumner drives 20,000 miles and floats one or two major rivers as he monitors peregrines. March marks the start of the season, when he and volunteers check cliffs for peregrine occupancy and new nests. During May, the birds are quiet as the females concentrate on incubating the eggs. From the last week in June through July, Sumner and his helpers return to look for evidence of nesting success, a difficult task because the birds select high ledges and the young birds remain mostly hidden until ready to fly.

Sumner hopes to raise money for satellite tracking to determine where Montana peregrines winter. He is concerned about threats in places like Central and South America, where DDT is still used. In the meantime, he will continue scanning Montana's skies and cliffs looking for peregrines returning to their historical habitat. A few years ago, Sumner saw a pair on the cliff near Livingston where, as a teenager, he first held a chick in his hands. After 45 years, he once again heard the *kek kek kek* of wild peregrines echoing off the rocks. “That was a wonderful feeling,” he says. 🦅

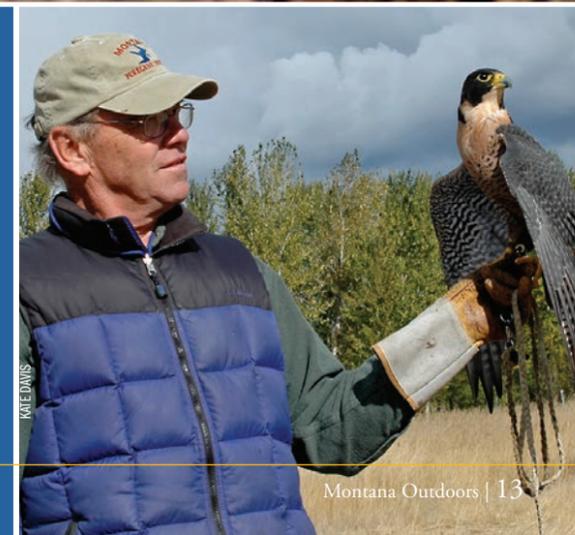
For more information on peregrine falcons and the Montana Peregrine Institute, visit the organization's website: montanaperegrine.org.



CAROL POLICH

NOT OUT OF THE WOODS YET

Though peregrine numbers continue to increase, so few live in Montana (just 69 breeding pairs) that researchers such as Jay Sumner (right), president of the Montana Peregrine Institute, monitor the bird's reproductive success each year. In 2007, production declined 17 percent from the ten-year average. Possible causes, says Sumner, could be heavy metals in the environment, West Nile virus, or last year's cold, wet nesting season.



KATE DAVIS